

EMERGENCY MEDICAL SERVICES (EMS) 4

ACTIVITY/COURSE CODE: 5533

Course Description:

Emergency Medical Technician-Basic (EMT-B)/EMS 4 serves as an entry level course in professional health careers. EMT-B is a solid foundation for further study in prehospital care (intermediate and paramedic) nursing, physical and occupational therapy, and premedical studies. EMT-B/EMS 4 provides the student with the knowledge and skills for the emergency medical field, responsibilities, first aid measures, and use of emergency equipment. The course may be offered as a dual-enrollment course with the local technical college or may be offered on a high school campus with a DHEC (Department of Health and Environmental Control) approved EMT-B instructor. After the student's 18th birthday and successful completion of both the practicum and the theoretical National Registry examination for EMT-B, the student will be nationally registered and state certified in South Carolina. National registry card expires in two years and state certification expires every three years.

General Requirements:

This course can be offered for seniors in high school. Students may begin the course prior to their 18th birthday, however, to take the National Registry Examination for EMT-B, the student must be at least 18 years old. Further information regarding EMT-Basic requirements can be found at the National Registry of Emergency Medical Technicians: www.nremt.org/; South Carolina EMS Educators Association, www.scems.com/edassn/; and South Carolina Department of Health and Environmental Control, <http://www.scdhec.gov/hr/ems/>

Units: 2 units

Prerequisite(s):

Completion of Emergency Medical Services 3 course with a grade of C or better and Anatomy and Physiology and/or recommendation of EMS coordinator or instructor. Student must also meet admission requirements of the participating local technical college, if student is dual enrolled.

Resources:

American Academy of Orthopaedic Surgeons (AAOS) - www.aaos.org

Emergency Care and Transportation of Sick and Injured, Latest Edition. Andrew N. Pollack, MD, Faaos, Editors Benjamin Gulli, MD, and Les Chatelain, BS, MS, Chris Stratford, BS, RN, BCEN, EMT-I. www.emtb.com.

Emergency Care for the Sick and Injured, Student Review Manual, Latest

Edition. www.emtb.com.

EMT Basic Review Manual for National Certification. Latest Edition.
www.emtb.com.

Beebe, Richard, and Deborah Funk. Delmar. 2001. Upper Saddle River, NJ 07458.
Fundamentals of Emergency Care, Latest Edition.

Leimmer, O'Keefe, Grant, Murray, and Bergeron. Emergency Care, Latest Edition.
Prentice-Hall.

Mistovich, Joseph. Prehospital Emergency Care, Latest Edition. Prentice Hall
Publishing. <http://vig.prenhall.com/catalog>

Mistovich, Joseph. Prehospital Emergency Care Workbook, Latest Edition.
Prentice Hall Publishing. <http://vig.prenhall.com/catalog>

National Highway Traffic Safety Administration - The mission of the Office of EMS is to reduce death and disability by providing leadership and coordination to the EMS community in assessing, planning, developing, and promoting comprehensive, evidence-based emergency medical services and 9-1-1 systems.

www.nhtsa.gov - click on Quick Links for Emergency Medical Services Program.

www.nhtsa.gov/people/outreach/media/catalog/Index.cfm

National Registry of Emergency Medical Technicians – The Nation's EMT Certification.
www.nremt.org

Stalcup, J. Victory Technologies. MedEMT CD-ROM (Individual Version). Latest Edition.

Appendix:

Brady Bookstore. EMT-Basic Exam Review, Latest Edition.
<http://www.bradybooks.com/catalog>

Brady Bookstore. EMT-Basic Computerized Student Review for Windows.
<http://www.bradybooks.com/catalog>

Miller, David J. EMT-B National Standards Review Self-Test. Latest Edition. Prentice Hall Publishing. <http://vig.prenhall.com/catalog>

EMERGENCY MEDICAL SERVICES 4 STANDARDS

Unit A: PREPARATORY

Introduction to Emergency Medical Care

1. Define emergency medical services (EMS) systems.
2. Differentiate the roles and responsibilities of the EMT-Basic from other prehospital care providers.
3. Describe the roles and responsibilities related to personal safety.
4. Discuss the roles and responsibilities of the EMT-Basic toward the safety of the crew, the patient, and bystanders.
5. Define quality improvement, and discuss the EMT-Basic's role in the process.
6. Define medical direction, and discuss the EMT-Basic's role in the process.
7. State the specific statutes and regulations in South Carolina regarding the EMS system.
8. Assess areas of personal attitude and conduct of the EMT-Basic.
9. Characterize the various methods used to access the EMS system in your community.

Well-Being of the EMT-Basic

1. List possible emotional reactions that the EMT-Basic may experience when faced with trauma, illness, death, and dying.
2. Discuss the possible reactions that a family member may exhibit when confronted with death and dying.
3. State the steps in the EMT-Basic's approach to the family confronted with death and dying.
4. State the possible reactions that the family of the EMT-Basic may exhibit due to their outside involvement in EMS.
5. Recognize the signs and symptoms of critical incident stress.
6. State possible steps that the EMT-Basic may take to help reduce/alleviate stress.
7. Explain the need to determine scene safety.
8. Discuss the importance of body substance isolation (BSI).
9. Describe the steps the EMT-Basic should take for personal protection from airborne and bloodborne pathogens.
10. List the personal protective equipment necessary for each of the following situations:
 - a. hazardous materials,
 - b. rescue operations,
 - c. violent scenes,
 - d. crime scenes,

- e. exposure to bloodborne pathogens, and
- f. exposure to airborne pathogens.
- 11. Explain the rationale for serving as an advocate for the use of appropriate protective equipment.
- 12. Use appropriate personal protective equipment given a scenario with potential infectious exposure. Remove and discard the protective garments at the completion of the scenario.
- 13. Complete disinfection/cleaning and all reporting documentation given a scenario with potential infectious exposure.

Medical Legal and Ethical Issues

- 1. Define the EMT-Basic scope of practice.
- 2. Discuss the importance of Do Not Resuscitate (DNR) (advance directives) and local or state provisions regarding EMS application.
- 3. Define consent and discuss the methods of obtaining consent.
- 4. Differentiate between expressed and implied consent.
- 5. Explain the role of consent of minors in providing care.
- 6. Discuss the implications for the EMT-Basic in patient refusal of transport.
- 7. Discuss the issues of abandonment, negligence, and battery and their implications for the EMT-Basic.
- 8. State the conditions necessary for the EMT-Basic to have a duty to act.
- 9. Explain the importance, necessity, and legality of patient confidentiality.
- 10. Discuss the considerations of the EMT-Basic in issues of organ retrieval.
- 11. Differentiate the actions that an EMT-Basic should take to assist in the preservation of a crime scene.
- 12. State the conditions that require an EMT-Basic to notify local law enforcement officials.
- 13. Explain the role of EMS and the EMT-Basic regarding patients with DNR orders.
- 14. Explain the rationale for the needs, benefits, and usage of advance directives.
- 15. Explain the rationale for the concept of varying degrees of DNR.

The Human Body

- 1. Identify the following topographic terms: medial, lateral, proximal, distal, superior, inferior, anterior, posterior, midline, right and left, mid-clavicular, bilateral, and mid-axillary.
- 2. Describe the anatomy and function of the following major body systems: respiratory, circulatory, musculoskeletal, nervous, and endocrine.

Baseline Vital Signs and Sample History

- 1. Identify the components of vital signs.
- 2. Describe the methods to obtain a breathing rate.

3. Identify the attributes that should be obtained when assessing breathing.
4. Differentiate between shallow, labored, and noisy breathing.
5. Describe the methods to obtain a pulse rate.
6. Identify the information obtained when assessing a patient's pulse.
7. Differentiate between a strong, weak, regular, and irregular pulse.
8. Describe the methods to assess the skin color, temperature, and condition (capillary refill in infants and children).
9. Identify normal and abnormal skin colors.
10. Differentiate between pale, blue, red, and yellow skin color.
11. Identify normal and abnormal skin temperatures.
12. Differentiate between hot, cool, and cold skin temperatures.
13. Identify normal and abnormal skin conditions.
14. Identify normal and abnormal capillary refill in infants and children.
15. Describe the methods to assess the pupils.
16. Identify normal and abnormal pupil size.
17. Differentiate between dilated (big) and constricted (small) pupil size.
18. Differentiate between reactive and nonreactive pupils and equal and unequal pupils.
19. Describe the methods to assess blood pressure.
20. Define systolic pressure.
21. Define diastolic pressure.
22. Explain the difference between auscultation and palpation for obtaining a blood pressure.
23. Identify the components of the SAMPLE history.
24. Differentiate between a sign and a symptom.
25. State the importance of accurately reporting and recording the baseline vital signs.
26. Discuss the need to search for additional medical identification.
27. Explain the value of performing the baseline vital signs.
28. Recognize and respond to the feelings patients experience during assessment.
29. Defend the need for obtaining and recording an accurate set of vital signs.
30. Explain the rationale for recording additional sets of vital signs.
31. Explain the importance of obtaining a SAMPLE history.
32. Demonstrate the skills involved in assessment of breathing.
33. Demonstrate the skills associated with obtaining a pulse.
34. Demonstrate the skills associated with assessing the skin color, temperature, condition, and capillary refill in infants and children.
35. Demonstrate the skills associated with assessing the pupils.
36. Demonstrate the skills associated with obtaining blood pressure.
37. Demonstrate the skills that should be used to obtain information from the patient, family, or bystanders at the scene.

Lifting and Moving Patients

1. Define body mechanics.
2. Discuss the guidelines and safety precautions that need to be followed when lifting a patient.
3. Describe the safe lifting of cots and stretchers.
4. Describe the guidelines and safety precautions for carrying patients and/or equipment.
5. Discuss one-handed carrying techniques.
6. Describe correct and safe carrying procedures on stairs.
7. State the guidelines for reaching and their application.
8. Describe correct reaching for log rolls.
9. State the guidelines for pushing and pulling.
10. Discuss the general considerations of moving patients.
11. State three situations that may require the use of an emergency move.
12. Identify the following patient carrying devices:
 - a. wheeled ambulance stretcher,
 - b. portable ambulance stretcher,
 - c. stair chair,
 - d. scoop stretcher,
 - e. long spine board,
 - f. basket stretcher, and
 - g. flexible stretcher.
13. Explain the rationale for properly lifting and moving patients.
14. Prepare each of the following devices for use, transfer a patient to the device, properly position the patient on the device, move the device to the ambulance, and load the patient into the ambulance, all while working with a partner:
 - a. wheeled ambulance stretcher,
 - b. portable ambulance stretcher,
 - c. stair chair,
 - d. scoop stretcher,
 - e. long spine board,
 - f. basket stretcher, and
 - g. flexible stretcher.
15. Demonstrate techniques for the transfer of a patient from an ambulance stretcher to a hospital stretcher while working with a partner.

UNIT B: AIRWAY

1. Name and label the major structures of the respiratory system on a diagram.
2. List the signs of adequate breathing.
3. List the signs of inadequate breathing.
4. Describe the steps in performing the head-tilt chin-lift.
5. Relate mechanism of injury to opening the airway.
6. Describe the steps in performing the jaw thrust.

7. State the importance of having a suction unit ready for immediate use when providing emergency care.
8. Describe the techniques of suctioning.
9. Describe how to artificially ventilate a patient with a pocket mask.
10. Describe the steps in performing the skill of artificially ventilating a patient with a bag valve-mask while using the jaw thrust.
11. List the parts of a bag-valve-mask system.
12. Describe the steps in performing the skill of artificially ventilating a patient with a bag-valve-mask for one and two rescuers.
13. Describe the signs of adequate artificial ventilation using the bag-valve-mask.
14. Describe the signs of inadequate artificial ventilation using the bag-valve-mask.
15. Describe the steps in artificially ventilating a patient with a flow restricted, oxygen-powered ventilation device.
16. List the steps in performing the actions taken when providing mouth-to-mouth and mouth-to-stoma artificial ventilation.
17. Describe how to measure and insert an oropharyngeal (oral) airway.
18. Describe how to measure and insert a nasopharyngeal (nasal) airway.
19. Define the components of an oxygen delivery system.
20. Identify a nonrebreather facemask and state the oxygen flow requirements needed for its use.
21. Describe the indications for using a nasal cannula versus a nonrebreather facemask.
22. Identify a nasal cannula and state the flow requirements needed for its use.
23. Explain the rationale for basic life support artificial ventilation and airway protective skills taking priority over most other basic life support skills.
24. Explain the rationale for providing adequate oxygenation through high-inspired oxygen concentrations to patients who, in the past, may have received low concentrations.
25. Demonstrate the steps in performing the head-tilt chin-lift.
26. Demonstrate the steps in performing the jaw thrust.
27. Demonstrate the techniques of suctioning.
28. Demonstrate the steps in providing mouth-to-mouth artificial ventilation with body substance isolation (barrier shields).
29. Demonstrate how to use a pocket mask to artificially ventilate a patient.
30. Demonstrate the assembly of a bag-valve-mask unit.
31. Demonstrate the steps in performing the skill of artificially ventilating a patient with a bag-valve-mask for one and two rescuers.
32. Demonstrate the steps in performing the skill of artificially ventilating a patient with a bag-valve-mask while using the jaw thrust.
33. Demonstrate artificial ventilation of a patient with a flow restricted, oxygen-powered ventilation device.
34. Demonstrate how to artificially ventilate a patient with a stoma.
35. Demonstrate how to insert an oropharyngeal (oral) airway.

36. Demonstrate how to insert a nasopharyngeal (nasal) airway.
37. Demonstrate the correct operation of oxygen tanks and regulators.
38. Demonstrate the use of a nonrebreather facemask, and state the oxygen flow requirements needed for its use.
39. Demonstrate the use of a nasal cannula, and state the flow requirements needed for its use.
40. Demonstrate how to artificially ventilate the infant and child patient.
41. Demonstrate oxygen administration for the infant and child patient.

UNIT C: PATIENT ASSESSMENT

Scene Size-Up

1. Recognize hazards/potential hazards.
2. Describe common hazards found at the scene of a trauma where a medical patient is present.
3. Determine whether or not the scene is safe to enter.
4. Discuss common mechanisms of injury/nature of illness.
5. Discuss the reason for identifying the total number of patients at the scene.
6. Explain the reason for identifying the need for additional help or assistance.
7. Explain the rationale for crew members to evaluate scene safety prior to entering.
8. Serve as a model for others explaining how patient situations affect one's evaluation of mechanism of injury or illness.
9. Observe various scenarios and identify potential hazards.

Initial Assessment

1. Summarize the reasons for forming a general impression of the patient.
2. Discuss methods of assessing altered mental status.
3. Differentiate between assessing the altered mental status in the adult, child, and infant patient.
4. Discuss methods of assessing the airway in the adult, child, and infant patient.
5. State reasons for management of the cervical spine once the patient has been determined to be a trauma patient.
6. Describe methods used for assessing whether or not a patient is breathing.
7. State what care should be provided to the adult, child, and infant patient who demonstrate adequate breathing.
8. State what care should be provided to the adult, child, and infant patient who do not demonstrate adequate breathing.
9. Differentiate between a patient who demonstrates adequate breathing and one who demonstrates inadequate breathing.

10. Distinguish between methods of assessing breathing in the adult, child, and infant patient.
11. Compare the methods of providing airway care to the adult, child, and infant patient.
12. Describe the methods used to obtain a pulse.
13. Differentiate between obtaining a pulse in an adult, child, and infant patient.
14. Discuss the need for assessing the patient for external bleeding.
15. Describe normal and abnormal findings when assessing skin color.
16. Describe normal and abnormal findings when assessing skin temperature.
17. Describe normal and abnormal findings when assessing skin condition.
18. Describe normal and abnormal findings when assessing skin capillary refill in the infant and child patient.
19. Explain the reason for prioritizing a patient for care and transport.
20. Explain the importance of forming a general impression of the patient.
21. Explain the value of performing an initial assessment.
22. Demonstrate the techniques for assessing mental status.
23. Demonstrate the techniques for assessing the airway.
24. Demonstrate the techniques for assessing whether or not the patient is breathing.
25. Demonstrate the techniques for assessing whether or not the patient has a pulse.
26. Demonstrate the techniques for assessing the patient for external bleeding.
27. Demonstrate the techniques for assessing the patient's skin color, temperature, condition, and capillary refill (infants and children only).
28. Demonstrate the ability to prioritize patients.

Focused History and Physical Exam - Trauma Patients

1. Discuss the reasons for reconsideration concerning the mechanism of injury.
2. State the reasons for performing a rapid trauma assessment.
3. Recite examples and explain why patients should receive a rapid trauma assessment.
4. Describe the areas included in the rapid trauma assessment, and discuss what should be evaluated.
5. Differentiate when the rapid assessment may be altered in order to provide patient care.
6. Discuss the reason for performing a focused history and physical exam.
7. Recognize and respect the feelings that patients might experience during assessment.
8. Demonstrate the rapid trauma assessment that should be used to assess a patient based on mechanism of injury.

Focused History and Physical Exam - Medical Patients

1. Describe the unique needs for assessing an individual with a specific chief complaint with no known prior history.
2. Differentiate between the history and physical exam that is performed for responsive patients with no known prior histories and responsive patients responsive with known prior histories.
3. Describe the unique needs for assessing an individual who is unresponsive or who has an altered mental status.
4. Differentiate between the assessment that is performed for a patient who is unresponsive or who has an altered mental status and other medical patients requiring assessment.
5. Attend to the feelings that these patients might be experiencing.
6. Demonstrate the patient care skills that should be used to assist with a patient with no known history who is responsive.
7. Demonstrate the patient care skills that should be used to assist with a patient who is unresponsive or who has an altered mental status.

Detailed Physical Exam

1. Discuss the components of the detailed physical exam.
2. State the areas of the body that are evaluated during the detailed physical exam.
3. Explain what additional care should be provided while performing the detailed physical exam.
4. Distinguish between the detailed physical exam that is performed on a trauma patient and that of the medical patient.
5. Explain the rationale for the feelings that these patients might be experiencing.
6. Demonstrate the skills involved in performing the detailed physical exam.

Ongoing Assessment

1. Discuss the reasons for repeating the initial assessment as part of the ongoing assessment.
2. Describe the components of the ongoing assessment.
3. Describe trending of assessment components.
4. Explain the value of performing an ongoing assessment.
5. Recognize and respect the feelings that patients might experience during assessment.
6. Explain the value of trending assessment components to other health professionals who assume care of the patient.
7. Demonstrate the skills involved in performing the ongoing assessment.

Communications

1. List the proper methods of initiating and terminating a radio call.
2. State the proper sequence for delivery of patient information.
3. Explain the importance of effective communication of patient information in the verbal report.
4. Identify the essential components of the verbal report.
5. Describe the attributes for increasing effectiveness and efficiency of verbal communications.
6. State legal aspects to consider in verbal communication.
7. Discuss the communication skills that should be used to interact with the patient.
8. Discuss the communication skills that should be used to interact with the family, bystanders, and individuals from other agencies while providing patient care and the difference between skills used to interact with the patient and those used to interact with others.
9. List the correct radio procedures in the following phases of a typical call:
 - a. to the scene,
 - b. at the scene,
 - c. to the facility,
 - d. at the facility,
 - e. to the station, and
 - f. at the station.
10. Explain the rationale for providing efficient and effective radio communications and patient reports.
11. Perform a simulated organized, concise radio transmission.
12. Perform an organized, concise patient report that would be given to the staff at a receiving facility.
13. Perform a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT-Basic was already providing care.

Documentation

1. Explain the components of the written report and list the information that should be included on the written report.
2. Identify the various sections of the written report.
3. Describe what information is required in each section of the prehospital care report and how it should be entered.
4. Define the special considerations concerning patient refusal.
5. Describe the legal implications associated with the written report.
6. Discuss all state and/or local record and reporting requirements.
7. Explain the rationale for patient care documentation.
8. Explain the rationale for the EMS system gathering data.
9. Explain the rationale for using medical terminology correctly.
10. Explain the rationale for using an accurate and synchronous clock so that information can be used in trending.
11. Complete a prehospital care report.

UNIT D: MEDICAL

General Pharmacology

1. Identify which medications will be carried on the unit.
2. State the medications (generic names) carried on the unit.
3. Identify the medications that the EMT-B may assist the patient in administering.
4. State the medications (generic names) that the EMT-B can assist the patient with.
5. Discuss the forms in which the medications may be found.
6. Explain the rationale for the administration of medications.
7. Demonstrate general steps for assisting patient with self-administration of medications.
8. Read the labels and inspect each type of medication.

Respiratory Emergencies

1. List the structure and function of the respiratory system.
2. State the signs and symptoms of a patient with breathing difficulty.
3. Describe the emergency medical care of the patient with breathing difficulty.
4. Recognize the need for medical direction to assist in the emergency medical care of the patient with breathing difficulty.
5. Describe the emergency medical care of the patient with breathing distress.
6. Establish the relationship between airway management and the patient with breathing difficulty.
7. List signs of adequate air exchange.
8. State the generic name, medication forms, dose, administration, action, indications, and contraindications for the prescribed inhaler.
9. Distinguish between the emergency medical care of the infant, child, and adult patient with breathing difficulty.
10. Differentiate between upper airway obstruction and lower airway disease in the infant and child patient.
11. Defend EMT-Basic treatment regimens for various respiratory emergencies.
12. Explain the rationale for administering an inhaler.
13. Demonstrate the emergency medical care for breathing difficulty.
14. Perform the steps in facilitating the use of an inhaler.

Cardiovascular Emergencies

1. Describe the structure and function of the cardiovascular system.

2. Describe the emergency medical care of the patient experiencing chest pain/discomfort.
3. List the indications for automated external defibrillation (AED).
4. List the contraindications for automated external defibrillation.
5. Define the role of EMT-B in the emergency cardiac care system.
6. Explain the impact of age and weight on defibrillation.
7. Discuss the position of comfort for patients with various cardiac emergencies.
8. Establish the relationship between airway management and the patient with cardiovascular compromise.
9. Predict the relationship between the patient experiencing cardiovascular compromise and basic life support.
10. Discuss the fundamentals of early defibrillation.
11. Explain the rationale for early defibrillation.
12. Explain that not all chest pain complaints result in cardiac arrest and that each patient with a chest pain complaint does not need to be attached to an automated external defibrillator.
13. Explain the importance of prehospital advanced cardiac life support (ACLS) intervention if it is available.
14. Explain the importance of urgent transport to a facility with advanced cardiac life support (ACLS) if it is not available in the prehospital setting.
15. Discuss the various types of automated external defibrillators.
16. Differentiate between the fully automated and the semiautomated defibrillator.
17. Discuss the procedures that must be taken into consideration for standard operations of the various types of automated external defibrillators.
18. State the reasons for assuring that the patient is pulseless and apneic when using the automated external defibrillator.
19. Discuss the circumstances that can result in inappropriate shocks.
20. Explain the considerations for interruption of CPR when using the automated external defibrillator.
21. Discuss the advantages and disadvantages of automated external defibrillators.
22. Summarize the speed of operation of automated external defibrillation.
23. Discuss the use of remote defibrillation through adhesive pads.
24. Discuss the special considerations for rhythm monitoring.
25. List the steps in the operation of the automated external defibrillator.
26. Discuss the standard of care that should be used to provide care to a patient with persistent ventricular fibrillation and no available advanced cardiac life support (ACLS).
27. Discuss the standard of care that should be used to provide care to a patient with recurrent ventricular fibrillation and no available advanced cardiac life support (ACLS).
28. Differentiate between the single rescuer and multi-rescuer care with an automated external defibrillator.

29. Explain the reason for pulses not being checked between shocks with an automated external defibrillator.
30. Discuss the importance of coordinating advanced cardiac life support (ACLS) trained providers with personnel using automated external defibrillators.
31. Discuss the importance of post-resuscitation care.
32. List the components of post-resuscitation care.
33. Explain the importance of frequent practice with the automated external defibrillator.
34. Discuss the need to complete the Automated Defibrillator: Operator's Shift Checklist.
35. Discuss the role of the American Heart Association (AHA) in the use of automated external defibrillation.
36. Explain the role medical direction plays in the use of automated external defibrillation.
37. State the reasons why a case review should be completed following the use of the automated external defibrillator.
38. Discuss the components that should be included in a case review.
39. Discuss the goal of quality improvement in automated external defibrillation.
40. Recognize the need for medical direction of protocols to assist in the emergency medical care of the patient with chest pain.
41. List the indications for the use of nitroglycerin.
42. State the contraindications and side effects in the use of nitroglycerin.
43. Define the functions of all controls on an automated external defibrillator, and describe event documentation and battery defibrillator maintenance.
44. Defend the reasons for obtaining initial training in automated external defibrillation and the importance of continuing education.
45. Defend the reason for maintenance of automated external defibrillators.
46. Explain the rationale for administering nitroglycerin to a patient with chest pain or discomfort.
47. Demonstrate the assessment and emergency medical care of a patient experiencing chest pain/discomfort.
48. Demonstrate the application and operation of the automated external defibrillator.
49. Demonstrate the maintenance of an automated external defibrillator.
50. Demonstrate the assessment and documentation of patient response to the automated external defibrillator.
51. Demonstrate the skills necessary to complete the Automated Defibrillator: Operator's Shift Checklist.
52. Perform the steps in facilitating the use of nitroglycerin for chest pain or discomfort.
53. Demonstrate the assessment and documentation of patient response to nitroglycerin.
54. Practice completing a prehospital care report for patients with cardiac emergencies.

Diabetes/Altered Mental Status

1. Identify the patient with altered mental status taking diabetic medications and the implications of a diabetes history.
2. State the steps in the emergency medical care of the patient with an altered mental status and a history of diabetes taking diabetic medicine.
3. Establish the relationship between airway management and the patient with altered mental status.
4. State the generic and trade names, medication forms, dose, administration, action, and contraindications for oral glucose.
5. Evaluate the need for medical direction in the emergency medical care of the diabetic patient.
6. Explain the rationale for administering oral glucose.
7. Demonstrate the steps in the emergency medical care for the patient with an altered mental status and a history of diabetes taking diabetic medicine.
8. Demonstrate the steps in the administration of oral glucose.
9. Demonstrate the assessment and documentation of patient response to oral glucose.
10. Demonstrate how to complete prehospital care reports for patients with diabetic emergencies.

Allergies

1. Recognize the patient experiencing an allergic reaction.
2. Describe the emergency medical care of the patient with an allergic reaction.
3. Establish the relationship between the patient with an allergic reaction and airway management.
4. Describe the mechanisms of allergic response and the implications for airway management.
5. State the generic and trade names, medication forms, dose, administration, action, and contraindications for the epinephrine auto-injector.
6. Evaluate the need for medical direction in the emergency medical care of the patient with an allergic reaction.
7. Differentiate between the general category of those patients having an allergic reaction and those patients having an allergic reaction and requiring immediate medical care, including immediate use of epinephrine auto-injector.
8. Explain the rationale for administering epinephrine using an auto-injector.
9. Demonstrate the emergency medical care of the patient experiencing an allergic reaction.
10. Demonstrate the use of epinephrine auto-injector.

11. Demonstrate the assessment and documentation of patient response to an epinephrine injection.
12. Demonstrate proper disposal of equipment.
13. Demonstrate completing prehospital care reports for patients with allergic emergencies.

Poisoning/Overdose

1. List various ways that poisons enter the body.
2. List signs/symptoms associated with poisoning.
3. Discuss the emergency medical care for the patient with possible overdose.
4. Describe the steps in the emergency medical care for the patient with suspected poisoning.
5. Establish the relationship between the patient suffering from poisoning or overdose and airway management.
6. State the generic and trade names, indications, contraindications, medication form, dose, administration, actions, side effects, and re-assessment strategies for activated charcoal.
7. Recognize the need for medical direction in caring for the patient with poisoning or overdose.
8. Explain the rationale for administering activated charcoal.
9. Explain the rationale for contacting medical direction early in the prehospital management of the poisoning or overdose patient.
10. Demonstrate the steps in emergency medical care of the patient with possible overdose.
11. Demonstrate the steps in emergency medical care of the patient with suspected poisoning.
12. Perform the necessary steps required to provide a patient with activated charcoal.
13. Demonstrate the assessment and documentation of patient response.
14. Demonstrate proper disposal of administration of activated charcoal equipment.
15. Demonstrate completing prehospital care reports for patients with poisoning/overdose emergencies.

Environmental Emergencies

1. Describe the various ways that the body loses heat.
2. List the signs and symptoms of exposure to cold.
3. Explain the steps in providing emergency medical care to a patient exposed to cold.
4. List the signs and symptoms of exposure to heat.
5. Explain the steps in providing emergency care to a patient exposed to heat.
6. Recognize the signs and symptoms of water-related emergencies.

7. Describe the complications of near drowning.
8. Discuss the emergency medical care of bites and stings.
9. Demonstrate the assessment and emergency medical care of a patient with exposure to cold.
10. Demonstrate the assessment and emergency medical care of a patient with exposure to heat.
11. Demonstrate the assessment and emergency medical care of a near drowning patient.
12. Demonstrate completing a prehospital care report for patients with environmental emergencies.

Behavioral Emergencies

1. Define behavioral emergencies.
2. Discuss the general factors that may cause an alteration in a patient's behavior.
3. State the various reasons for psychological crises.
4. Discuss the characteristics of an individual's behavior that suggest that the patient is at risk for suicide.
5. Discuss special medical/legal considerations for managing behavioral emergencies.
6. Discuss the special considerations for assessing a patient with behavioral problems.
7. Discuss the general principles of an individual's behavior that suggest that he or she is at risk for violence.
8. Discuss methods to calm behavioral emergency patients.
9. Explain the rationale for learning how to modify your behavior toward the patient experiencing a behavioral emergency.
10. Demonstrate the assessment and emergency medical care of the patient experiencing a behavioral emergency.
11. Demonstrate various techniques to safely restrain a patient with a behavioral problem.

Obstetrics/Gynecology

1. Identify the following structures: uterus, vagina, fetus, placenta, umbilical cord, amniotic sac, and perineum.
2. Identify and explain the use of the contents of an obstetrics kit.
3. Identify predelivery emergencies.
4. State indications of an imminent delivery.
5. Differentiate the emergency medical care provided to a patient with predelivery emergencies from a normal delivery.
6. State the steps in the predelivery preparation of the mother.
7. Establish the relationship between body substance isolation and childbirth.
8. State the steps to assist in the delivery.

9. Describe care of the baby as the head appears.
10. Describe how and when to cut the umbilical cord.
11. Discuss the steps in the delivery of the placenta.
12. List the steps in the emergency medical care of the mother post-delivery.
13. Summarize neonatal resuscitation procedures.
14. Describe the procedures for the following abnormal deliveries: breech birth, prolapsed cord, and limb presentation.
15. Differentiate the special considerations for multiple births.
16. Describe special considerations of meconium.
17. Describe special considerations of a premature baby.
18. Discuss the emergency medical care of a patient with a gynecological emergency.
19. Explain the rationale for understanding the implications of treating two patients (mother and baby).
20. Demonstrate the steps to assist in the normal cephalic delivery.
21. Demonstrate necessary care procedures of the fetus as the head appears.
22. Demonstrate infant neonatal procedures.
23. Demonstrate post delivery care of infant.
24. Demonstrate how and when to cut the umbilical cord.
25. Attend to the steps in the delivery of the placenta.
26. Demonstrate the post-delivery care of the mother.
27. Demonstrate the procedures for the following abnormal deliveries: vaginal bleeding, breech birth, prolapsed cord, and limb presentation.
28. Demonstrate the steps in the emergency medical care of the mother with excessive bleeding.
29. Demonstrate completing a prehospital care report for patients with obstetrical/gynecological emergencies.

UNIT E. TRAUMA

Bleeding and Shock

1. List the structure and function of the circulatory system.
2. Differentiate between arterial, venous, and capillary bleeding.
3. State methods of emergency medical care for external bleeding.
4. Establish the relationship between body substance isolation and bleeding.
5. Establish the relationship between airway management and the trauma patient.
6. Establish the relationship between mechanism of injury and internal bleeding.
7. List the signs of internal bleeding.
8. List the steps in the emergency medical care of the patient with signs and symptoms of internal bleeding.
9. List signs and symptoms of shock (hypoperfusion).

10. State the steps in the emergency medical care of the patient with signs and symptoms of shock (hypoperfusion).
11. Explain the sense of urgency to transport patients who are bleeding and who show signs of shock (hypoperfusion).
12. Demonstrate direct pressure as a method of emergency medical care of external bleeding.
13. Demonstrate the use of diffuse pressure as a method of emergency medical care for external bleeding.
14. Demonstrate the use of pressure points and tourniquets as a method of emergency medical care for external bleeding.
15. Demonstrate the care of the patient exhibiting signs and symptoms of internal bleeding.
16. Demonstrate the care of the patient exhibiting signs and symptoms of shock (hypoperfusion).
17. Demonstrate completing a prehospital care report for patient with bleeding and/or shock (hypoperfusion).

Soft Tissue Injuries

1. State the major functions of the skin.
2. List the layers of the skin.
3. Establish the relationship between body substance isolation (BSI) and soft tissue injuries.
4. List the types of closed soft tissue injuries.
5. Describe the emergency medical care of the patient with a closed soft tissue injury.
6. State the types of open soft tissue injuries.
7. Describe the emergency medical care of the patient with an open soft tissue injury.
8. Discuss the emergency medical care considerations for a patient with a penetrating chest injury.
9. State the emergency medical care considerations for a patient with an open wound to the abdomen.
10. Differentiate the care of an open wound to the chest from an open wound to the abdomen.
11. List the classifications of burns.
12. Define superficial burn.
13. List the characteristics of a superficial burn.
14. Define partial thickness burn.
15. List the characteristics of a partial thickness burn.
16. Define full thickness burn.
17. List the characteristics of a full thickness burn.
18. Describe the emergency medical care of the patient with a superficial burn.
19. Describe the emergency medical care of the patient with a partial thickness burn.

20. Describe the emergency medical care of the patient with a full thickness burn.
21. List the functions of dressing and bandaging.
22. Describe the purpose of a bandage.
23. Describe the steps in applying a pressure dressing.
24. Establish the relationship between airway management and the patient with chest injury, burns, and blunt and penetrating injuries.
25. Describe the effects of improperly applied dressings, splints, and tourniquets.
26. Describe the emergency medical care of a patient with an impaled object.
27. Describe the emergency medical care of a patient with an amputation.
28. Describe the emergency care for a chemical burn.
29. Describe the emergency care for an electrical burn.
30. Demonstrate the steps in the emergency medical care of closed soft tissue injuries.
31. Demonstrate the steps in the emergency medical care of open soft tissue injuries.
32. Demonstrate the steps in the emergency medical care of a patient with an open chest wound.
33. Demonstrate the steps in the emergency medical care of a patient with open abdominal wounds.
34. Demonstrate the steps in the emergency medical care of a patient with an impaled object.
35. Demonstrate the steps in the emergency medical care of a patient with an amputation.
36. Demonstrate the steps in the emergency medical care of an amputated part.
37. Demonstrate the steps in the emergency medical care of a patient with superficial burns.
38. Demonstrate the steps in the emergency medical care of a patient with partial thickness burns.
39. Demonstrate the steps in the emergency medical care of a patient with full thickness burns.
40. Demonstrate the steps in the emergency medical care of a patient with a chemical burn.
41. Demonstrate completing a prehospital care report for patients with soft tissue injuries.

Musculoskeletal Care

1. Describe the function of the muscular system.
2. Describe the function of the skeletal system.
3. List the major bones or bone groupings of the spinal column, the thorax, the upper extremities, and the lower extremities.

4. Differentiate between an open and a closed painful, swollen, deformed extremity.
5. State the reasons for splinting.
6. List the general rules of splinting.
7. List the complications of splinting.
8. List the emergency medical care for a patient with a painful, swollen, deformed extremity.
9. Explain the rationale for splinting at the scene versus load and go.
10. Explain the rationale for immobilization of the painful, swollen, deformed extremity.
11. Demonstrate the emergency medical care of a patient with a painful, swollen, deformed extremity.
12. Demonstrate completing prehospital care reports for patients with musculoskeletal injuries.

Injuries to the Head And Spine

1. State the components of the nervous system.
2. List the functions of the central nervous system.
3. Define the structure of the skeletal system as it relates to the nervous system.
4. Relate mechanism of injury to potential injuries of the head and spine.
5. Describe the implications of not properly caring for potential spine injuries.
6. State the signs and symptoms of a potential spine injury.
7. Describe the method of determining if a responsive patient may have a spine injury.
8. Relate the airway emergency medical care techniques to the patient with a suspected spine injury.
9. Describe how to stabilize the cervical spine.
10. Discuss indications for sizing and using a cervical spine immobilization device.
11. Establish the relationship between airway management and the patient with head and spine injuries.
12. Describe a method for sizing a cervical spine immobilization device.
13. Describe how to log roll a patient with a suspected spine injury.
14. Describe how to secure a patient to a long spine board.
15. List instances when a short spine board should be used.
16. Describe how to immobilize a patient using a short spine board.
17. Describe the indications for the use of rapid extrication.
18. List steps in performing rapid extrication.
19. State the circumstances when a helmet should be left on the patient.
20. Discuss the circumstances when a helmet should be removed.
21. Identify different types of helmets.
22. Describe the unique characteristics of sports helmets.
23. Explain the preferred methods to remove a helmet.

24. Discuss alternative methods for removal of a helmet.
25. Describe how the patient's head is stabilized to remove the helmet.
26. Differentiate how the head is stabilized with a helmet compared to without a helmet.
27. Explain the rationale for immobilization of the entire spine when a cervical spine injury is suspected.
28. Explain the rationale for utilizing immobilization methods apart from the straps on the cots.
29. Explain the rationale for utilizing a short spine immobilization device when moving a patient from the sitting to the supine position.
30. Explain the rationale for utilizing rapid extrication approaches only when they will make the difference between life and death.
31. Defend the reasons for leaving a helmet in place for transport of a patient.
32. Defend the reasons for removal of a helmet prior to transport of a patient.
33. Demonstrate opening the airway in a patient with suspected spinal cord injury.
34. Demonstrate evaluating a responsive patient with a suspected spinal cord injury.
35. Demonstrate stabilization of the cervical spine.
36. Demonstrate the four person log roll for a patient with a suspected spinal cord injury.
37. Demonstrate how to log roll a patient with a suspected spinal cord injury using two people.
38. Demonstrate securing a patient to a long spine board.
39. Demonstrate using the short board immobilization technique.
40. Demonstrate procedure for rapid extrication.
41. Demonstrate preferred methods for stabilization of a helmet.
42. Demonstrate helmet removal techniques.
43. Demonstrate alternative methods for stabilization of a helmet.
44. Demonstrate completing a prehospital care report for patients with head and spinal injuries.

UNIT F: INFANTS AND CHILDREN

Infants and Children

1. Identify the developmental considerations for the following age groups:
 - a. infant,
 - b. toddler,
 - c. pre-school,
 - d. school age, and
 - e. adolescent.
2. Describe differences in anatomy and physiology of the infant, child, and adult patient.
3. Differentiate the response of the ill or injured infant or child (age specific)

- from that of an adult.
4. Indicate various causes of respiratory emergencies.
 5. Differentiate between respiratory distress and respiratory failure.
 6. List the steps in the management of foreign body airway obstruction.
 7. Summarize emergency medical care strategies for respiratory distress and respiratory failure.
 8. Identify the signs and symptoms of shock (hypoperfusion) in the infant and child patient.
 9. Describe the methods of determining organ perfusion in the infant and child patient.
 10. State the usual cause of cardiac arrest in infants and children versus adults.
 11. List the common causes of seizures in the infant and child patient.
 12. Describe the management of seizures in the infant and child patient.
 13. Differentiate between the injury patterns in adults, infants, and children.
 14. Discuss the field management of the infant and child trauma patient.
 15. Summarize the indicators of possible child abuse and neglect.
 16. Describe the medical legal responsibilities in suspected child abuse.
 17. Recognize need for EMT-Basic debriefing following a difficult infant or child transport.
 18. Explain the rationale for having knowledge and skills appropriate for dealing with the infant and child patient.
 19. Attend to the feelings of the family when dealing with an ill or injured infant or child.
 20. Understand the provider's own response (emotional) to caring for infants or children.
 21. Demonstrate the techniques of foreign body airway obstruction removal in the infant.
 22. Demonstrate the techniques of foreign body airway obstruction removal in the child.
 23. Demonstrate the assessment of the infant and child.
 24. Demonstrate bag-valve-mask artificial ventilations for the infant.
 25. Demonstrate bag-valve-mask artificial ventilations for the child.
 26. Demonstrate oxygen delivery for the infant and child.

UNIT G: OPERATIONS

Ambulance Operations

1. Discuss the medical and nonmedical equipment needed to respond to a call.
2. List the phases of an ambulance call.
3. Describe the general provisions of state laws relating to the operation of the ambulance and privileges in any or all of the following categories:
 - a. speed,
 - b. warning lights,

- c. sirens,
 - d. right-of-way,
 - e. parking, and
 - f. turning.
4. List contributing factors to unsafe driving conditions.
5. Describe the considerations that should be given to:
 - a. requesting an escort,
 - b. following an escort vehicle, and
 - c. approaching an intersection.
6. Discuss "Due Regard for Safety of All Others" while operating an emergency vehicle.
7. State what information is essential in order to respond to a call.
8. Discuss various situations that may affect response to a call.
9. Differentiate between the various methods of moving a patient to the unit based upon injury or illness.
10. Apply the components of the essential patient information in a written report.
11. Summarize the importance of preparing the unit for the next response.
12. Identify what is essential for completion of a call.
13. Distinguish among the terms cleaning, disinfection, high-level disinfection, and sterilization.
14. Describe how to clean or disinfect items following patient care.
15. Explain the rationale for appropriate report of patient information.
16. Explain the rationale for having the unit prepared to respond.

Gaining Access

1. Describe the purpose of extrication.
2. Discuss the role of the EMT-Basic in extrication.
3. Identify what equipment for personal safety is required for the EMT-Basic.
4. Define the fundamental components of extrication.
5. State the steps that should be taken to protect the patient during extrication.
6. Evaluate various methods of gaining access to the patient.
7. Distinguish between simple and complex access.

Overviews

1. Explain the EMT-Basic's role during a call involving hazardous materials.
2. Describe what the EMT-Basic should do if there is reason to believe that there is a hazard at the scene.
3. Describe the actions that an EMT-Basic should take to ensure bystander safety.
4. State the role the EMT-Basic should perform until appropriately trained personnel arrive at the scene of a hazardous materials situation.

5. Break down the steps to approaching a hazardous situation.
6. Discuss the various environmental hazards that affect EMS.
7. Describe the criteria for a multiple-casualty situation.
8. Evaluate the role of the EMT-Basic in the multiple-casualty situation.
9. Summarize the components of basic triage.
10. Define the role of the EMT-Basic in a disaster operation.
11. Describe basic concepts of incident management.
12. Explain the methods for preventing contamination of self, equipment, and facilities.
13. Review the local mass casualty incident plan.
14. Given a scenario of a mass casualty incident, perform triage.

UNIT H: ADVANCED AIRWAY (ELECTIVE)

Advanced Airway

1. Identify and describe the airway anatomy in the infant, child, and adult.
2. Differentiate between the airway anatomy in the infant, child, and adult.
3. Explain the pathophysiology of airway compromise.
4. Describe the proper use of airway adjuncts.
5. Review the use of oxygen therapy in airway management.
6. Describe the indications, contraindications, and technique for insertion of nasal gastric tubes.
7. Describe how to perform the Sellick maneuver (cricoid pressure).
8. Describe the indications for advanced airway management.
9. List the equipment required for orotracheal intubation.
10. Describe the proper use of the curved blade for orotracheal intubation.
11. Describe the proper use of the straight blade for orotracheal intubation.
12. State the reasons for and proper use of the stylet in orotracheal intubation.
13. Describe the methods of choosing the appropriate size endotracheal tube in an adult patient.
14. State the formula for sizing an infant or child endotracheal tube.
15. List complications associated with advanced airway management.
16. Define the various alternative methods for sizing the infant and child endotracheal tube.
17. Describe the skill of orotracheal intubation in the adult patient.
18. Describe the skill of orotracheal intubation in the infant and child patient.
19. Describe the skill of confirming endotracheal tube placement in the adult, infant, and child patient.
20. State the consequence of and the need to recognize unintentional esophageal intubation.
21. Describe the skill of securing the endotracheal tube in the adult, infant, and child patient.
22. Recognize and respect the feelings of the patient and family during advanced airway procedures.

23. Explain the value of performing advanced airway procedures.
24. Defend the need for the EMT-Basic to perform advanced airway procedures.
25. Explain the rationale for the use of a stylet.
26. Explain the rationale for having a suction unit immediately available during intubation attempts.
27. Explain the rationale for confirming breath sounds.
28. Explain the rationale for securing the endotracheal tube.
29. Demonstrate how to perform the Sellick maneuver (cricoid pressure).
30. Demonstrate the skill of orotracheal intubation in the adult patient.
31. Demonstrate the skill of orotracheal intubation in the infant and child patient.
32. Demonstrate the skill of confirming endotracheal tube placement in the adult patient.
33. Demonstrate the skill of confirming endotracheal tube placement in the infant and child patient.
34. Demonstrate the skill of securing the endotracheal tube in the adult patient.
35. Demonstrate the skill of securing the endotracheal tube in the infant and child patient.

ENRICHMENT MODULE 1A: PREPARATORY

Infection Control

1. List the routes of transmission for communicable diseases.
2. Identify general precautions to be taken by the EMT-Basic.
3. Identify procedures for minimizing risk.
4. State the procedures for disinfecting the ambulance.
5. Discuss the most threatening mode of communicable diseases for the EMT-Basic in the line of duty.
6. Discuss the reasons for disinfection procedures of the ambulance.
7. Discuss the duty of the EMT-Basic in regard to treatment and transportation of patients with communicable diseases.

Hazardous Materials

1. Name nine (9) classes of hazardous materials.
2. Recognize hazardous material placards.
3. Name four (4) clues to hazardous materials presence.
4. Identify levels of personal protection.
5. Using a Department of Transportation (DOT) emergency response guidebook (ERG), locate response guidelines for specific hazardous materials.
6. Identify decontamination procedures.

7. Discuss at least three (3) situations in which the EMT-Basic may encounter a hazardous material problem.
8. Discuss how and when to notify Chemtrec.

Weapons of Mass Destruction

1. Discuss types of terrorist events.
2. Discuss how to identify a terrorist event.
3. Discuss how to respond to and deal with harms from a terrorist event.
4. Identify characteristics of agents that could be used as weapons.

ENRICHMENT MODULE 5A: TRAUMA

I.V. Maintenance

1. State the use of D5W and volume expander solutions.
2. Name two types of venipuncture devices.
3. Name three parts of a drip set.
4. State the difference between a mini drip set and a regular drip set.
5. Name the three things one must know to calculate drip rates.
6. Name seven signs and symptoms of pyrogenic reaction.
7. State the treatment for pyrogenic reaction.
8. Name three signs of local infiltration of IV.
9. State the treatment of infiltration.
10. Name the signs and symptoms of thrombophlebitis.
11. State the treatment of thrombophlebitis.
12. Name three causes of circulatory overload.
13. Name four signs of circulatory overload.
14. State the treatment of circulatory overload.
15. Name five signs of air embolism.
16. State the treatment for air embolism.
17. State the procedure the EMT-Basic must know to discontinue an IV.
18. State the role of the EMT-Basic involving IV therapy.
19. Calculate various drip rates.
20. Demonstrate setting/changing drip rates.
21. Demonstrate the steps necessary to discontinue an IV.

Pneumatic Anti-Shock Garments

1. List the indications for pneumatic anti-shock garment (P.A.S.G.) application.
2. List the contraindication(s) for P.A.S.G.
3. Identify breath sounds, particularly rales, as a contraindication for P.A.S.G. application.
4. Demonstrate the procedure for the application of P.A.S.G.
5. Demonstrate the procedure for deflation of P.A.S.G.

April 2006

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